

is attached. Please add new claims 67-80. A clean version of the new claims is given below.

C1  
1. (Twice Amended) A microfastening system comprising:

a first fastening element including a plurality of extending nanotubes; and  
a second fastening element including a plurality of extending  
nanotubes;

wherein the extending nanotubes from each element are disposed so as to become  
mechanically interconnected as the first and second fastening elements are joined by  
advancing toward each other.

C2  
24. (Amended) A microfastening system comprising:

a first fastening element including a plurality of extending nanotubes; and  
a second fastening element including a plurality of extending nanotubes, wherein said  
nanotubes of at least one of said fastening elements are selectively deformable;  
whereby upon joining said first and second fastening elements, the extending nanotubes  
from each element become mechanically interconnected, wherein said fastening  
elements are reusable.

C3  
35. (Amended) A method of manufacturing a microfastener comprising the steps of:

- a) providing a substrate having an attachment surface;
- b) introducing a plurality of open ended selectively deformable non-linear nanotubes  
to said substrate whereby said nanotubes are attracted to said attachment surface  
and become affixed thereto, wherein said microfastener is reusable.

C4

57. (Amended) A method of manufacturing a microfastener having nanotubes with two ends, comprising the steps of:

- a) providing a substrate having an attachment surface;
- b) introducing a plurality of open ended nanotubes to said substrate whereby said nanotubes are attracted to said attachment surface and become affixed thereto, wherein at least some of the nanotubes become affixed at only one end, wherein said microfastener is reusable.

67. (NEW) A microfastening system according to claim 1, wherein the fastening elements comprise a substrate including an attachment surface and a plurality of functionalized non-linear nanotubes attached to and extending from said attachment surface, wherein the nanotubes have a free standing end which is free of the surface.

68. (NEW) A microfastening system comprising:

- a first fastening element including a plurality of extending nanotubes;
- and
- a second fastening element including a plurality of extending nanotubes;

wherein the extended nanotubes of the fastening elements are functionalized so as to obtain mating fastening elements, wherein the nanotubes are disposed so as to become mechanically interconnected as the elements are advanced toward one another.

69. (New) A microfastening system according to claim 68, wherein at least one of the first and second fastening elements further comprise a substrate from which said nanotubes extend.

70. (New) A microfastening system according to claim 69, wherein said substrate is formed from materials selected from the group consisting of metal, carbon, silicon, germanium, polymers, and composites thereof.

71. (New) A microfastening system according to claim 68, wherein the nanotubes are at least partially multi-walled.

72. (New) A microfastening system according to claim 68, wherein the nanotubes are functionalized to a non-linear shape.

73. (New) A microfastening system according to claim 72, wherein the non-linear nanotubes are selected from the group consisting of hooks, loops, spirals, and combinations thereof.

74. (New) A microfastening system comprising a plurality of mating nanoscale fastening elements, wherein the fastening elements comprise carbon nanotubes structurally modified to include bent portions, wherein the nanotubes are so disposed that the fastening elements become mechanically interconnected as the elements are advanced toward one another.

75. (New) A microfastening system according to claim 73, wherein the fastening elements comprise a substrate including an attachment surface and a plurality of functionalized

non-linear nanotubes attached to and extending from said attachment surface, wherein the nanotubes have a free standing end which is free of the surface.

76. (New) A microfastening system according to claim 74, wherein at least one of the first and second fastening elements further comprise a substrate from which the nanotubes extend.

77. (New) A microfastening system according to claim 76, wherein the substrate is formed from materials selected from the group consisting of metals, carbon, silicon, germanium, polymers, and composites thereof.

78. (New) A microfastening system according to claim 74, wherein the nanotubes are at least partially multi-walled.

79. (New) A microfastening system according to claim 74, wherein the nanotubes are functionalized to a non-linear shape.

80. (New) A microfastening system according to claim 79, wherein the non-linear nanotubes are selected from the group consisting of hooks, loops, spirals, and combinations thereof.

## ATTACHMENT TO CLAIM AMENDMENTS

1. (Twice Amended) A microfastening system comprising:

a first fastening element including a plurality of extending nanotubes; and  
a second fastening element including a plurality of extending  
nanotubes;

[whereby upon joining said first and second fastening elements,] wherein the extending nanotubes from each element are disposed so as to become mechanically interconnected [without requiring the degradation of said nanotubes] as the first and second fastening elements are joined by advancing toward each other.

24. (Amended) A microfastening system comprising:

a first fastening element including a plurality of extending nanotubes; and  
a second fastening element including a plurality of extending nanotubes, wherein said nanotubes of at least one of said fastening elements are selectively deformable;

whereby upon joining said first and second fastening elements, the extending nanotubes from each element become mechanically interconnected, wherein said fastening elements are reusable.

35. (Amended) A method of manufacturing a microfastener comprising the steps of:

- a) providing a substrate having an attachment surface;
- b) introducing a plurality of open ended selectively deformable non-linear nanotubes to said substrate whereby said nanotubes are attracted to said attachment surface and become affixed thereto, wherein said microfastener is reusable.

57. (Amended) A method of manufacturing a microfastener having nanotubes with two ends, comprising the steps of:

- a) providing a substrate having an attachment surface;
- b) introducing a plurality of open ended nanotubes to said substrate whereby said nanotubes are attracted to said attachment surface and become affixed thereto, wherein at least some of the nanotubes become affixed at only one end, wherein said microfastener is reusable.